

Stormwater Control Measures

DMAs with populations under 10,000 will be expected to give consideration to the storm water control measures in the process of developing their implementation plans. This should include a description of the extent of the problem and the actions that will be taken to address it, as appropriate.

Urban/Residential Storm Water Control Measures (including rural residential)

1. *Pollution Prevention in Municipal Operations*
 - a. The DMA must develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations; and
 - b. Using training materials that are available from ODEQ, USEPA, or other organizations, the DMA's program must include employee training to prevent and reduce storm water pollution from activities including, but not limited to, park and open space maintenance, fleet and building maintenance, new municipal facility construction and related land disturbances, design and construction of street and storm drain systems, and storm water system maintenance.

2. *Public Education and Outreach on Storm Water Impacts*

The DMA must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

3. *Public Involvement/Participation*

The DMA must at a minimum, comply with State, Tribal, and local public notice requirements when implementing a public involvement/participation program.

4. *Illicit Discharge Detection and Elimination*

The DMA must:

 - a. Develop, implement and enforce a program to detect and eliminate illicit discharges [as defined in 40 CFR §122.26(b)(2)] into the DMA's system;
 - b. Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the United States and/or the State of Oregon that receive discharges from those outfalls;
 - c. To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the DMA's storm sewer system and implement appropriate enforcement procedures and actions. Possible

sanctions include non-monetary penalties (such a stop work orders), fines, bonding requirements, and/or permit denials for non-compliance.

- d. Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the DMA's system;
- e. Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and
- f. Address the following categories of non-storm water discharges or flows (illicit discharges) if the DMA identifies them as substantial contributors of pollutants to the DMA's system: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20)), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, de-chlorinated swimming pool discharges, and street wash water. Discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as substantial sources of pollutants to waters of the United States and the State of Oregon.
- g. The DMA must develop a process to respond to and document complaints relating to illicit discharges.

5. Construction Site Storm Water Runoff Control

The DMA must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the DMA's system from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in the DMA's program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The DMA's program must include the development and implementation of, at a minimum:

- a. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law;
- b. Requirements for construction site operators to implement appropriate erosion and sediment control best management practices;
- c. Requirements for construction site operators to prevent or control waste that may cause adverse impacts to water quality such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site;

- d. Procedures for site plan review that incorporate measures to prevent or control potential water quality impacts;
- e. Procedures for receipt and consideration of information submitted by the public; and
- f. Procedures for site inspection and enforcement of control measures.

6. Post-Construction Storm Water Management in New Development and Redevelopment

The DMA must:

- a. Develop, implement, and enforce a program to ensure reduction of pollutants in storm water runoff from new development and redevelopment projects that disturb one acre or more, or less than one acre if they are part of a larger common plan of development or sale, and discharge into the DMA's system. The DMA's program must ensure that controls are in place that would prevent or minimize water quality impacts.
- b. Develop and implement strategies that include a combination of structural or non-structural BMPs appropriate for the DMA's community, and
 - i. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law;
 - ii. Ensure adequate long-term operation and maintenance of BMPs; and
 - iii. Ensure adequate enforcement of ordinance or alternative regulatory program.

Example of the Six Stormwater Considerations Inclusion in a Strategy Matrix

BEST MANAGEMENT PRACTICE OR ACTIVITY	POLLUTANT(S)	SOURCE OF POLLUTANTS	MANAGEMENT STRATEGY	ACTIONS AND BENCHMARKS	PERFORMANCE MEASUREMENT
<i>Six Stormwater Control Measures</i>	<i>Specific</i>	<i>Who or what is causing the problem</i>	<i>Actions we are currently taking and actions we will take to reduce pollution from this source(s)</i>	<i>Specific ways to implement strategies and indicators to reflect progress</i>	<i>Implementation tracking and completion</i>
Public Education and Outreach;	Bacteria, other pollutant sources	Stormwater run off from streets, parking lots, residential, business and industrial properties.	Raise awareness of actions that individuals can take to minimize stormwater impacts.	1. Publish a series of educational materials in the local newspaper and produce city publications. 2. Distribute pamphlets with Stormwater tips in water bills. 3. Post publications, fact sheets at city hall front counter.	1. Number of fact sheets and pamphlets distributed 2. Ensure that all fact sheets, information is updated annually and is made available at city hall or other venues.
Public Education and Outreach; Public Participation	Bacteria, other pollutant sources	Stormwater run off from streets, parking lots, residential, business and industrial properties.	Raise awareness of actions that individuals can take to minimize stormwater impacts.	1. Conduct an open house for local residents to visit with public works, and other city services that deal with water quality and stormwater issues. 2. Provide storm drain stenciling that informs "no dumping" as an educational tool. Consider using volunteers to apply stencil	1. Evaluate the success of open house, number of visitors, information conveyed. 2. Number of storm drains that were stenciled.

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Public Education and Outreach	Bacteria	Improper installation of onsite septic systems, inadequate maintenance of existing onsite systems	1. Provide outreach material regarding proper installation and maintenance of onsite septic systems. 2. Work with watershed councils and other agencies to target specific areas of concern	1. Obtain onsite flyer from existing sources such as OSU Ext. EPA, or DEQ and mail flyers to residential, businesses that have septic systems. 2. Include in mailings a return postage paid survey form that can be mailed back in and will allow for evaluation of public interest in stormwater.	1. Number of pamphlets distributed 2. Number of survey forms sent back for more information.
Public Education and Outreach; Public Participation	Bacteria, other pollutant sources	Bacterial water contamination from septic systems and pet waste. Emphasize bacterial contamination in waterways used for recreation	1. Monthly newsletter emphasizing proper septic system installation and maintenance. 2. Address drinking water protection and recreation by discussing pet waste pick-up and local hobby farm animal waste management	1. Design newsletter articles and submit to publisher. 2. Organize septic system workshops and advertise to local homeowners, developers and real estate agents 3. Include in mailings a return postage paid survey form that can be mailed in and will allow for people to seek more information.	1. Number of articles published and the article subject matter 2. Number of septic workshops and number of people reached. 3. Number of survey forms returned for further information

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Public Outreach	Bacteria, other pollutant sources	Stormwater discharges of pollution into waterways	1. Update city website to include information regarding protection of surface water, ground water and drinking water 2. Keep website updated and expand website capabilities	Update websites with information or links related to water quality protection.	1. Present to Council for approval. Allocate employee for website design and upkeep. 2. Document number of hits on website. 3. Document any associated phone calls or in person visits into city that was a direct result of the website.
Pollution Prevention	Bacteria, other pollutant sources	Stormwater run off from streets, parking lots and residential/ business properties	1. Decrease sedimentation and erosion from local sites by actively evaluating existing condition of conveyance systems.	1. Send out notification letters to property owners if it is determined that drainage ways are inadequate or causing erosion and sediment issues	1. Document the number of notifications sent out and date sent. 2. Work with interested parties that would like to implement fixes. 3. Promote the idea of Low Impact Development options.

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Pollution Prevention in Municipal Operations	Bacteria, other pollutant sources	Potential contaminant sources to surface water, groundwater and drinking water	1. Evaluate the handling and storage of material that could be considered a source of pollutant at public works shops and other local govt. maintenance shops. 2. Evaluate vehicle and equipment maintenance practices.	1. Conduct training for city employees that work in maintenance shops on proper storage and use of materials considered to be a pollutant. 2. Require annual evaluation of current maintenance activities and the management strategies that are being utilized.	1. Number and type of training opportunities that were completed. 2. Evaluation of all employee workplans to ensure proper training has occurred.
Pollution Prevention	Bacteria, other pollutant sources	1.Run off from streets and parking lots; overflow from properties and other conveyance systems	Evaluate catch basins and ensure proper function. 2. Investigate alternative filter options such as absorbent pads etc that can be used to trap sediment and other pollutants	1. Clean and inspect all publicly owned catch basins annually. 2. Seek agreements with County and ODOT where appropriate to ensure clean out of sediment and debris in catch basins occurs	1. Document quantity of debris removal from catch basin, drainage system. 2. Inspection should include collection date and current condition of system at time of evaluation.

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Pollution Prevention; discharge Detection and Elimination	Bacteria; other pollutant sources	Potential discharges of pollutants to stormwater from City businesses such as auto shops, gas stations, manufacturers	1. Determine if businesses are operating under required 1200Z permits. 2. Work with local business owners to ensure facilities are properly maintained and are managing stormwater appropriately	1. Evaluate locations in city that may use and store hazardous waste; consider using fire Marshal database. 2. Work with willing owners that choose to improve management practices. Work on incentives options for owners	1. Complete a master list of all existing locations that use and store hazardous waste. 2. Send out invitations to have a free site evaluation to determine if more can be done to protect water quality
Pollution Prevention; Discharge Detection and Elimination	Potential, Nutrient Related, DDT/DDE, Dieldrin, Dioxin, PAHs, Lead, PCBs	Illegal Improper discharge to the stormwater system or rivers/streams	Set up a complaint "hot line" that will allow for contact information exchange and complaint documentation	1. Train city employees. 2. Set up a referral system and ensure follow-up. 3. Investigate the ability of the city to issue citations when appropriate.	1. Create a database that will track the number of complaints received, type of complaint and follow-up information. 2. Number of citations issued and follow-up actions.
Pollution Prevention	All stormwater pollutants	Urban stormwater runoff. Potential contamination of surface water, groundwater and drinking water	Develop a Stormwater Management Plan	1. Investigate sources of funding for developing a Management Plan. 2. Hire a consultant to assist city in developing a Stormwater Management Plan that will address the city plan to manage stormwater runoff. 2. Apply the six stormwater control measures as part of plan	1. Develop a Stormwater Management Plan that incorporates the six stormwater control measures 2. Ensure that completed plan is adopted by the city council. 3. Implement Stormwater Management Plan

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Pollution Prevention	Bacteria, other pollutant sources	High priority areas of flooding and erosion from stormwater runoff	Develop a Stormwater Master Plan. 2. Map all catch basins, culverts and drainage ditches.	1. Investigate sources of funding for developing a Master Plan. 2. Hire a consultant to assist city in developing a Stormwater Master Plan. 3. Include in plan water quality protection priorities.	When funding is secured draft plan and submit to council for adoption. 2. Implement plan.
Construction site stormwater runoff control	Bacteria, other pollutant sources	Stormwater runoff from residential and business/ Industrial construction sites.	1. Work with DEQ and County to ensure that developers /contractors apply for 1200C permit if required. 2. Require an approved erosion control plan for all developments under 1 acre.	1. Provide a DEQ 1200-C fact sheet to developers and contractors along with associated building packet. 2. Require developers to apply for a 1200-C permit if required and ensure that the permit is issued. 3. Ensure that an approved erosion control plan is in place before construction begins.	1. Number of fact sheets distributed 2. Number of erosion control plans reviewed and approved by city. 3. Organize periodic visits to construction sites to ensure erosion controls are functional and in place for sites above and below 1 acre
Post Construction new development and redevelopment	Bacteria, other pollutant sources	Discharges of pollutants to stormwater	Investigate Low Impact Development (LID) tools that can be used during new construction or retrofitting existing developments	Research existing guidance document involving LID and adopt practices that work for the city. 2. Consider a tax incentive for developers that choose LID over conventional tools.	1. Document when and where LID is utilized. 2. Solicit developers that will incorporate LID into construction sites. 3. Determine when incentives allow for LID to be incorporated

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Public Education and Outreach	Bacteria, Temperature	Erosion of soils and solar heating	Vegetation management along riparian zones for erosion control and temperature management 1. Protect riparian vegetation within City jurisdiction 2. Promote voluntary actions for protection and restoration of privately owned river front properties 3. Look for opportunities to install vegetation to block solar radiation or retain sediment w/in City and upstream of City	1. Coordinate with schools and local Watershed Councils for volunteer opportunities and riparian restoration upstream, w/in City, and downstream	Participate in projects to protect riparian vegetation and stream banks.
Enhance & Restore Riparian Areas	Temperature	Loss of riparian vegetation which allows solar heating of streams and rivers	Continue to seek collaboration, partnerships and grant funding in order to implement riparian and habitat enhancement projects.	Track riparian enhancement activities by location, number of volunteers, type of activity, groups/partners involved and area of coverage.	Develop and identify area for improvement and/or restoration. Develop a timeline for pursuing these projects.

